



UNITED STATES PATENT AND TRADEMARK OFFICE

Cen

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/051,313	04/23/1993	YASUHIKO TAKEMURA	0756-864	5353

31780 7590 10/31/2007
ERIC ROBINSON
PMB 955
21010 SOUTHBANK ST.
POTOMAC FALLS, VA 20165

EXAMINER

DUONG, TAI V

ART UNIT	PAPER NUMBER
----------	--------------

2871

MAIL DATE	DELIVERY MODE
-----------	---------------

10/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 08/051,313	Applicant(s) TAKEMURA, YASUHIKO	
	Examiner Tai Duong	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) See Continuation Sheet is/are allowed.
- 6) ☒ Claim(s) 121-123, 125, 126, 128, 142-145, 147-150, 152 and 159-165 is/are rejected.
- 7) ☒ Claim(s) 124, 127, 146 and 151 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 1993 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/4/06; 3/21/07</u> | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1,3,5,50,53-55,58,61,62,65-67,70,74,75,78,81,85,86,92,95,98-100,103,106,107,110-112,115,118 and 121-165.

Continuation of Disposition of Claims: Claims allowed are 1,3,50,53-55,58,62,65-67,70,74,75,78,81,85,86,92,95,98-100,103,106,107,110-112,115, 118, 129-141 and 153-158.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recited feature "a driving circuit ... for generating bipolar pulse(s)" of claims 159-165 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification does not disclose the feature "a driving

circuit connected to said gate line ... for generating bipolar pulse(s)", as recited in claims 159-165.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 159-165 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. *Nowhere* in the original specification does it disclose "a driving circuit connected to the gate lines for generating a bipolar pulse or first and second bipolar pulses", as now recited in claims 159-165.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 121-123, 125, 126, 128, 142, 143-145, 147-150, 152 and 159-165 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito (US 4,775,861).

As to claims 121-123, 125, 126, 128, 142, 143-145, 147-150 and 152, note Fig. 5 which disclose an electro-optical device comprising a first pixel electrode 4' provided over a substrate and electrically connected to a data line 2 and a gate line of n-th row through at least one transistor 3', a second pixel electrode 4 provided over a substrate

and electrically connected to said data line 2 and a gate line of (n+1)-th row through at least one transistor 3 wherein said first pixel electrode 4' is provided on an opposite side of said data line to said second pixel electrode 4 (col. 3, line 45-col. 4, line 14). The recited feature "wherein a first bipolar pulse is applied to the gate line ... to the first pulse" has not been given patentable weight because it is directed to the manner of operating the device. It has been recognized that the manner of operating the device does not differentiate apparatus claim from the prior art. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP 2114, page 2100-56.

As to claims 159-165, Saito also impliedly discloses a driving circuit connected to the gate line of n-th row for generating scanning pulses, as apparent from Fig. 3A (col. 3, lines 7-14). It is noted that the feature "a driving circuit connected to said gate line of n-th row *for generating bipolar pulse*", as recited in these claims, is a *functional* feature. This functional feature has not been given patentable weight because it has been held that "[W]hile features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997). See MPEP 2114, page 2100-56.

Claims 1, 3, 5, 50, 53-55, 58, 61, 62, 65-67, 70, 74, 75, 78, 81, 85, 86, 92, 95, 98-100, 103, 106, 107, 110-12, 115, 118, 129-141 and 153-158 are allowed.

Claims 124, 127, 146 and 151 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 61 is allowed over the prior art of record. None of the prior art discloses or suggests an electro-optical device having the combination of the features "a *capacitive wiring* provided over said substrate", "an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor", "a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other said of said source region and said drain region" and "a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween".

Claims 1, 3, 50, 53-55, 58, 62, 65-67, 70, 74, 75, 78, 81, 85, 86, 92, 95, 98-100, 103, 106, 107, 110-12, 115, 118 are also allowed because they recite similar features as those of claim 61.

Claim 5 is allowed over the prior art of record. None of the prior art discloses or suggests an electro-optical device having the combination of the features "said pixel electrode overlapping said gate line of (n+1)-th row with an insulator therebetween", "a pixel electrode of (n+1)-th row and m-th column provided over said substrate and connected with said data line and said gate line of (n+1)-th row through corresponding at least one transistor, said pixel electrode of (n+1)-th row and m-th column overlapping said gate line of (n+2)-th row with an insulator therebetween and overlapping said gate

line of (n+1)-th row with an insulator therebetween" and "wherein said pixel electrode of (n+1)-th row and m-th column is provided on an opposite side of said data line to said pixel electrode of (n+1)-th row and m-th column".

Claims 129-141 and 153-158 are allowed over the prior art of record. None of the prior art discloses or suggests an electro-optical device having the structure as recited in claim 121 in combination with the features "an insulating film formed over the first and second thin film transistors (TFTs)", "a first pixel electrode provided over said insulating film and electrically connected with the other one of the source and drain regions of the first TFT" and "a second pixel electrode provided over said insulating film and electrically connected with the other one of the source and drain regions of the second TFT".

Claims 124, 127, 146 and 151 are allowed over the prior art of record. None of the prior art discloses or suggests an electro-optical device having the structure as recited in claim 121, 125, 142 or 148 in combination with the feature "wherein the first pixel electrode overlaps the gate line of n-th row and the gate line of (n+1)-th row".

Applicant's arguments with respect to claims 121-123, 125, 126, 128, 142, 143-145, 147-150, 152 and 159-165 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


TOAN TON
PRIMARY PATENT EXAMINER


TVD

10/07